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Italicized titles are books, periodicals or reports. The numbers following the entries indicate issue and pages in which the item is found. The number preceding the hyphen is the issue; the numbers following the hyphen are the pages.

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Canadian DataSystems, Maclean-Hunter Ltd., 777 Bay St., Toronto M5W 1A7, Ontario, Canada
Capacity Management Review, Applied Computer Research, PO Box 9280, Phoenix, AZ 85068-9280
CASE Outlook, 11830 SW Kerr Parkway, Suite 315, Lake Oswego, OR 97035
Chief Information Officer Journal, Faulkner & Gray, Inc., 106 Fulton St., New York, NY 10038
CIO: The Magazine for Information Executives, PO Box 9208, Framingham, MA 01701-9208
Communications News, 2504 N. Tamiami Trail, Nokomis, FL 34275

Communications of the ACM, 11 W. 42nd St., New York, NY 10036
Computer, IEEE, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720
Computer Audit News and Developments, PO Box 81-151, Wellesley Hills, MA 02181-0001
Computer Audit Update, Elsevier Advanced Technology Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*
Computer Communications, Butterworth-Heinemann Ltd., Linacre House, Jordan Hill, Oxford, OX2 8DP, England
Computer Fraud & Security Bulletin, Elsevier Advanced Technology Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*
Computer Graphics Forum, Elsevier Science Publishers B.V., PO Box 211, 1000 AE Amsterdam, The Netherlands
Computer Language, Miller Freeman Publications, 600 Harrison St., San Francisco, CA 94107

Computer Security, Auditing, and Controls, Management Advisory Publications, PO Box 81151, Wellesley Hills, MA 02181-0001

Computer Security Digest, Computer Protection Systems, 150 North Main St., Plymouth, MI 48170

Computers & Security, Elsevier Advanced Technology, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

Computers In Industry, Elsevier Science Publishers B.V., PO Box 1991, 1000 BZ Amsterdam, The Netherlands

Computerworld, PO Box 9171, Framingham, MA 01701-9171

Contingency Planning & Recovery Journal, PO Box 81151, Wellesley Hills, MA 02181-0001

Customer Care, Software Strategies Inc., 6 Calvin Rd., Weston, CT 06883

Data Base Newsletter, 31 State St., Suite 800, Boston, MA 02109

Data Based Advisor, 4010 Morena Blvd., Suite 200, San Diego, CA 92117

Data Entry Awareness Report, Management Information Corp., PO Box 5062, Cherry Hill, NJ 08034-5062

Data Training, Weingarten Publications, 38 Chauncy St., Boston, MA 02111-2369

Database & Network Journal, A.P. Publications Ltd., 351 City Rd., London EC1V 1LR, England

Database Programming & Design, Miller Freeman Publications, 600 Harrison St., San Francisco, CA 94107

Datacenter Manager, International Computer Programs, Inc., 9100 Keystone Crossing, Suite 200, Indianapolis, IN 46240

Datamation, 275 Washington St., Newton, MA 02158-1630

DBMS, M & T Publishing, Inc., 501 Galveston Dr., Redwood City, CA 94063

EDI In Finance, Elsevier Advanced Technology Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

The EDP Auditor Journal, EDP Auditors Foundation, PO Box 88180 Carol Stream, IL 60188-0180

EDPACS, Auerbach Publishers, One Penn Plaza, New York, NY 10019

Financial & Accounting Systems, Auerbach Publishers, One Penn Plaza, New York, NY 10019

Financial Technology Insight, Elsevier Advanced Technology Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

The Furrow, John Deere & Co., Moline, IL 61265-8098

Harvard Business Review, Harvard Business School, Boston, MA 02163

I & CS, Chilton Co., Chilton Way, Radnor, PA 19089

IBM Journal of Research and Development, IBM Corporation, Armonk, NY 10504

IBM Systems Journal, IBM Corporation, Armonk, NY 10504

IEEE Computer Graphics & Applications, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720-1264

IEEE Design & Test of Computers, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720-1264

IEEE Expert, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720-1264

IEEE Micro, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720-1264

IEEE Software, 10662 Los Vaqueros Ci., Los Alamitos, CA 90720-1264

Industrial Engineering, 25 Technology Park/Atlanta, Norcross, GA 30092

INFOR, Journal Dept., University of Toronto Press, 5201 Dufferin St., Downsview, Ont. M3H 5T8, Canada

Information Center Quarterly, Weingarten Publications, 38 Chauncey St., Boston, MA 02111-2369

Information Executive, Data Processing Management Association, 505 Busse Highway, Park Ridge, IL 60068-3191

Information & Management, Elsevier Science Publishers, PO Box 1991, 1000 BZ, Amsterdam, The Netherlands

Information Management Report, Elsevier Advanced Technology, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

Information Retrieval & Library Automation, Lomond Publications, Inc., PO Box 88, Mt. Airy, MD 21771

Information Services & Use, Elsevier Advanced Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

Information & Software Technology, Butterworth-Heinemann Ltd., Linacre House, Jordan Hill, Oxford OX2 8DP, England

Information Strategy: The Executive's Journal, Auerbach Publishers, One Penn Plaza, New York, NY 10019

Information Systems Management, Auerbach Publishers, One Penn Plaza, New York, NY 10019

InTech, P.O. Box 12277, Research Triangle Park, NC 27709

International Computer Law Adviser, Law & Technology Press, PO Box 3280, Manhattan Beach, CA 90266

International Spectrum, IDMB Inc., 10675 Treene St., Suite 103, San Diego, CA 92131

I/S Analyzer, United Communications Group, 11300 Rockville Pike, Suite 1100, Rockville, MD 20852-3030

Journal of Management Information Systems, M.E. Sharpe Inc., 80 Business Park Dr., Armonk, NY 10504

Journal of Quality Assurance Institute, 7575 Dr. Phillips Blvd., Suite 350, Orlando, FL 32819

Journal of Software Maintenance—Research & Practice, John Wiley & Sons Ltd., Baffins Lane, Chichester, Sussex PO19 1UD, England

Journal of Software—Practice & Experience, John Wiley & Sons Ltd., Baffins Lane, Chichester, Sussex PO19 1UD, England

Journal of Systems Management, 1433 W. Bagley Road, Berea, OH 44017

LAN Magazine, Miller Freeman Publications, 600 Harrison St., San Francisco, CA 94107

LAN Technology, M & T Publishing, 501 Galveston Dr., Redwood City, CA 94063

Management Accounting, 10 Paragon Dr., Montvale, NJ 07645-1760

Manufacturing Systems, Hitchcock Publishing Co., 191 S. Gary Ave., Carol Stream, IL 60188-2292

Modern Materials Handling, Cahners Publishing Co., 275 Washington St., Newton, MA 02158-1630

Modern Office Technology, Penton Publishing Inc., 1100 Superior Ave., Cleveland, OH 44114

NCSA News, National Computer Security Association, Suite 309, 4401-A Connecticut Ave., NW, Washington, DC 20015

Network Monitor, Elsevier Advanced Technology Publications, Mayfield House, 256 Banbury Rd., Oxford OX2 7DH, England*

The Office, 1600 Summer St., Stamford, CT 06905

Privacy Journal, PO Box 28577, Providence, RI 02908

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Research Horizons, Georgia Institute of Technology, Research Communications Office, 223 Centennial Research Bldg., Atlanta, GA 30332
SAA Age, Nims Associates, 12200 Ford Rd., Suite 220, Dallas, TX 75234-7264
Scientific American, 415 Madison Ave., New York, NY 10017
Security, Cahners Publishing, PO Box 5080, Des Plaines, IL 60018-5080
Sloan Management Review, Sloan School of Management, M.I.T., 1 Amherst St., E40-292, Cambridge, MA 02139
Software Maintenance News, 141 St. Marks Pl. Suite 5F, Staten Island, NY 10301
Software—Practice & Experience, John Wiley & Sons Ltd., Baffins Lane, Chichester, Sussex PO19 1UD, England
The Software Practitioner, Computing Trends, PO Box 213, State College, PA 16804

Software Protection, Law & Technology Press, PO Box 3280, Manhattan Beach, CA 90266-3280
Software Quality World, ProQual, Inc., PO Box 337, Medfield, MA 02050-0003
System Builder, International Computer Programs, Inc., 9100 Keystone Crossing, Suite 200, Indianapolis, IN 46240
System Development, Applied Computer Research, PO Box 82266, Phoenix, AZ 85071-2266
Systems 3X/400, 950 Lee St., Des Plaines, IL 60016
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